

1. BACKGROUND

The Vacuum Assisted Closure (VAC®) Therapy is an innovative system that promotes wound healing by applying negative pressure (vacuum) at the wound site. The VAC® Therapy application removes oedema fluid, increases blood flow and cell proliferation and reduces bacterial colonization.

2. PURPOSE

Since the oncological surgery is often radical with a long rehabilitation phase and complications surgical wound, the physicians decided to use VAC® Therapy for recovering of two severely operated patients.

Pharmacists, after a careful study of related literature, addressed supply ensuring the prescription for safety and clinical appropriateness.



Figure 1 _____D.G.M. patient 30 day after surgical operation__

3. MATHERIAL AND METHODS

In this pilot experiment VAC® Therapy was applied to two patients: D.G.M., female, aged 76, affected by abdominal wall sarcoma. M.L., male, aged 78, affected by sacral chordoma. Pharmacy databases and electronic medical records were also evaluated.

4. RESULTS

Both patients have undergone to complete resection of the tumour. After surgery VAC® Therapy was applied. Patient D.G.M. received 6 weeks of treatment and regained full functionality in 120 days, for a total cost of € 2.219,00. Patient M.L. received 2 weeks of treatment and regained full functionality in 60 days, for a total cost of € 669,90. (Table 1)

No complications were recorded and the therapy was well tolerated with a therapeutic compliance of 100%.

		D.G.M.			M.L.			
		Week1-2			Week 1-2			
	VAC® Therapy medication used	COST	QUANTITY	TOTAL COST	VAC® Therapy medication used	COST	QUANTITY	TOTAL COST
VAC® Ultra™ Motor Unit	VAC® VeraFlo™ dressing medium	€ 56,00	4	€ 224,00	VAC® WhiteFoam dressing small	€ 51,80	3	€ 155,40
	VAC® WhiteFoam dressing small	€ 50,40	4	€ 201,60	VAC® Simplace™ medium	€ 59,50	3	€ 178,50
	VAC®Canister with gel 1000 ml	€ 105,00	4	€ 420,00	3M Tegaderm Foam Adhesive Dressing	€ 10,50	9	€ 94,50
	Sensa TRAC Pad™	€ 31,50	1	€ 31,50	Sensa TRAC Pad	€ 31,50	1	€ 31,50
Week 3-4-5-6					VAC®Canister with gel 1000 ml	€ 105,00	2	€ 210,00
ActiVAC®Motor Unit	VAC® Simplace™ medium	€ 59,50	8	€ 476,00	VAC® Ultra™ Motor Unit	-	-	-
	VAC® WhiteFoam dressing small	€ 51,80	8	€ 414,40				
	VAC®Canister with gel 300ml	€ 52,50	8	€ 420,00				
	Sensa TRAC Pad™	€ 31,50	1	€ 31,50				
TOTAL				€ 2.219,00				€ 669,90

Table 1. Summary of VAC® therapy costs.

5. CONCLUSION

VAC® Therapy avoids further extensive reconstructive operations allowing fast patient recovery. The device is expensive but it can be a valid option for patients with high risk of poorly healing and reduced compliance. The cost can be written off by reducing the time of hospitalizations, and risk of complications and infections. The pharmacist played a key role in the choice of the most appropriate treatment for the patient and valuation of cost/benefit.

6. REFERENCES

Negative pressure wound therapy in the management of abdominal compartment syndrome. 7th April 2009. Kaplan M. Ostomy/Wound Management 51(2A Suppl):29S-35S.

Conflict of interest: nothing to declare.